

Section - A

Multiple Choice Questions (MCQ'S)

Q.1 Choose the correct answer for each from the given options.

- Intersection of two _____ sets is empty always.
(a) Non - empty (b) Equivalent (c) Power (d) Discount
- For all x, y , $xy = yx$, This is _____ property w.r.t Multiplication.
(a) Commutative (b) Distributive (c) Associative (d) Reflexive
- $\log_e x \times \log_e x =$ _____
(a) 0 (b) 1 (c) -1 (d) Infinite
- $\sqrt{x^2 + 2xy + y^2}$ is a / an _____ expression.
(a) Rational (b) Irrational (c) Polynomial (d) Monomial
- Square roots(s) $x^2 + 2 + \frac{1}{x^2}$ is / are _____.
(a) $x + \frac{1}{x}$ (b) $-x - \frac{1}{x}$
(c) Both (a) and (b) (d) None of these
- The graph of these equation $x + y = 5$ and $x + 2y = 9$ represents lines l_1 and l_2 intersecting each other at point _____.
(a) (4, 1) (b) (-4, -1) (c) (1, 4) (d) (3, 2)
- If $A = \begin{bmatrix} 5 & 6 \\ 3 & -1 \end{bmatrix}$, then $A' =$ _____.
(a) $\begin{bmatrix} -1 & 6 \\ 3 & 5 \end{bmatrix}$ (b) $\begin{bmatrix} 5 & 3 \\ 6 & -1 \end{bmatrix}$ (c) $\begin{bmatrix} 5 & 3 \\ 6 & -1 \end{bmatrix}$ (d) $\begin{bmatrix} 3 & -1 \\ 5 & 6 \end{bmatrix}$
- If $a - x = b$ and $c + x = d$ then equation _____ will be the relation free from x .
(a) $a + c = b + d$ (b) $a + b = c + d$
(c) $a - c = b - d$ (d) $a + b + c + d = 0$
- _____ is a commensurable ratio.
(a) $\sqrt{4} : \sqrt{36}$ (b) $\sqrt{9} : \sqrt{2}$ (c) $\sqrt{5} : \sqrt{25}$ (d) None of these
- Median of the data 12, 10, 11, 13, 9, 19 is _____.
(a) 11.5 (b) 12.5 (c) 10.5 (d) 10
- If the vertex and one arm are common of two angles then they are called _____.
(a) Adjacent Angles (b) Supplementary Angles
(c) Complementary Angles (d) Congruent Angles
- _____ Chords (s) can be draw in a circle from a point of a circle.
(a) Only One (b) Infinite (c) No (d) Two
- In two similar triangles _____ are congruent.
(a) Angles (b) Areas (c) Medians (d) All of these
- A circle which touches one side of a triangle externally and two sides product internally is called _____.
(a) Circum - Circle (b) In-centre (c) In-Circle (d) Escribed Circle
- Opposite angles of a cyclic quadrilateral are _____.
(a) Always equal (b) Complementary
(c) Supplementary (d) Always right angles
- The point through which the medians of a triangle pass is called _____.
(a) Centroid (b) In-centre (c) Circum centre (d) None of these
- $xy + xy - 2 =$ _____.
(a) $(xy - 1)(xy + 1)$ (b) $(xy - 1)(xy - 1)$
(c) $(xy - 2)(xy + 1)$ (d) $(xy - 1)(xy + 2)$
- $\operatorname{cosec}(mB) =$ _____.
(a) $\sin(90 - mB)$ (b) $\cos(90 - mB)$
(c) $\sec(90 - mB)$ (d) $\tan(90 - mB)$
- $x' - x' + 2 =$ _____.
(a) $(x - 1)(x + 2x + 2)$ (b) $(x + 1)(x' - 2x - 2)$
(c) $(x + 1)(x' + 2x - 2)$ (d) $(x + 1)(x' - 2x + 2)$
- $\frac{\sqrt{1 - \cos^2 x}}{\cos x} =$ _____.
(a) $\cot x$ (b) $\sec x$ (c) $\tan x$ (d) $\sin x$